

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number  
**WO 2005/058949 A1**

(51) International Patent Classification<sup>7</sup>: **C07K 14/46**,  
17/00, G01N 33/68

(74) Agent: YUSARN AUDREY & PARTNERS; 190 Middle  
Road, #12-04, Singapore 188979 (SG).

(21) International Application Number:  
PCT/SG2004/000417

(81) Designated States (*unless otherwise indicated, for every  
kind of national protection available*): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(22) International Filing Date:  
17 December 2004 (17.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/530,608 19 December 2003 (19.12.2003) US

(84) Designated States (*unless otherwise indicated, for every  
kind of regional protection available*): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **AGENCY  
FOR SCIENCE, TECHNOLOGY AND RESEARCH**  
[SG/SG]; 20 Biopolis Way, #07-01 Centros, Singapore  
138668 (SG).

**Published:**  
— with international search report

(72) Inventors; and  
(75) Inventors/Applicants (*for US only*): **TSAI, Heng Hang**  
[SG/SG]; Block 222, Loyang Ave, #01-03, Loyang Valley,  
Singapore 509068 (SG). **LEUNG, Hon-chiu Eastwood**  
[US/SG]; 66 Chun Tin Road, Singapore 599642 (SG).

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(54) Title: PROTEIN SEPARATION DEVICE

(57) Abstract: The invention provides a protein separation device comprising a chaperone protein immobilised on a substrate. In one embodiment, the chaperone protein is an Hsp60 chaperone, preferably a group one chaperone, preferably GroEL. The invention also provides a method for isolating a protein from a biological sample using a protein separation device of the invention.

WO 2005/058949 A1